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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,953	05/03/2001	Kevin Hickerson	0007975-0007	6923
66498 7590 02/26/2007 J.D. HARIMAN DLA PIPER US, LLP 1999 AVENUE OF THE STARS, 4TH FLOOR LOS ANGELES, CA 90067			EXAMINER CHAWAN, SHEELA C	
			ART UNIT	PAPER NUMBER
			2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/848,953

Applicant(s)

HICKERSON ET AL.

Examiner

Sheela C. Chawan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/2/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Applicant is advised that the Notice of Allowance mailed on 11/06/06 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

Prosecution on the merits of this application is reopened on claims 1-69 considered unpatentable for the reasons indicated below:

The indicated allowability of claims 1-69 is withdrawn. However, a new ground(s) of rejection is based on 35 § USC 102 (e) rejection in view of Tanaka (US 5,940,532).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 1- 4, 20- 27 and 47- 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka (US. 5,940,532).

As to claim 1, Tanaka discloses a method of translating handwritten input to machine readable characters (see for example, figs 1 or 3) comprising:

obtaining a first data item (note, obtaining handwritten character entered by a pen or a tablet through a stroke detecting apparatus (see item 1, in fig 1); and

performing one or more recognition processing operations upon said data item by a preprocessor (see item 2, in fig 1), a special purpose hardware recognition processing unit (item 3, fig 1), a postprocessor (note, recognition post- processing apparatus (item 5, in fig 1), and a confirmed symbol observation source (note, the confirmation is performed by the post processor, where the postprocessor determines whether or not the recognition result by the recognition apparatus is correct) to produce a second data item , i.e., corrected handwritten character ( see column 1, lines 44-47 ).

As to claims 2, 25 and 48, Tanaka discloses the method wherein said first data item is a handwritten symbol, (fig 12, element 20 tablet input device column 1, lines 56- 62).

As to claims 3, 26 and 49, Tanaka discloses the method of altering said first data item by a preprocessor to a reduced form (column 2, lines 24- 40).

As to claims 4, 27 and 50, Tanaka discloses the method wherein said step of altering is fully information preserving (column 2, lines 24- 40).

As to claim 24, see the rejection of claim 1, above.

As to claim 47, see the rejection of claim 1, above.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-8, 11- 15, 20-23, 28-31,34-38, 43-46, 51-54, 57- 61, 63-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US. 5,940,532), as applied to claims 1- 4, 24- 27 and 47- 50 above and further in view of Platt et al., (US. 5,812,698).

Regarding claims 5, 28 and 51, Tanaka discloses apparatus for and method of recognizing hand-written characters. Tanaka is silent about selecting one or more machine-readable characters by a postprocessor.

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Platt discloses handwriting recognition system and method. The system comprises of:

selecting one or more machine-readable characters (note, machine –readable characters corresponds to upper and lower case) by a postprocessor (column 5, lines 44- 46, 61- 63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka to include selecting one or more machine-readable characters by a postprocessor. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka by the teaching of Platt in order to provide a handwriting recognition system, which is capable of recognizing a wide variety of handwriting styles, (as suggested by Platt at column 2, lines 36- 38).

As to claims 6, 29 and 52, Platt discloses the method wherein said special purpose hardware unit is configured to perform a first recognition processing operation (note, accepts data from tablet) and a second recognition processing operation (note, fig 1, 20 neural network) in parallel (fig 1, column 4, lines 6 - 9, 24- 30, column 4, lines 6- 30, column 5, lines 2- 5).

As to claims 7, 30 and 53, Platt discloses the method wherein said special hardware unit is configured (column 21, 20- 27) to perform hidden Markov model computations (abstract, column 17, lines 3-11, column 21, lines 20- 27, 40- 44)

As to claims 8 and 31, Platt discloses the method wherein said special purpose hardware unit comprises:

a memory unit (fig 20, 336).

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As to claims 11, 34, 54 and 57, Platt discloses the method wherein said data item is a combination of a plurality of handwritten symbols (fig 1, note plurality of symbol corresponds to ABC).

As to claims 12, 35 and 58, Platt discloses the method further comprising:

adjusting the operation of said special purpose hardware unit in accordance with a set of training data (abstract, column 16, lines 65- 67, column 7, lines 33-41, column 21, lines 20-27, 40-51).

As to claims 13, 36 and 59, Platt discloses the method further comprising:

adjusting the operation of said preprocessor in accordance with a set of training data (column 16, lines 26-32, 65-67, abstract, column 7, lines 33-41, column 16, lines 26- 32, column 17, lines 10-17, column 21, lines 20-27, 40-51).

As to claims 14, 37 and 60, Platt discloses the method further comprising:

adjusting the operation of said postprocessor (fig 1, item 22) in accordance with a set of training data (fig 1, item 20, column 5, lines 2-5, column 16, lines 26- 32, column 17, lines 10-17).

As to claims 15, 38 and 61, Platt discloses the method wherein said step of

selecting comprises:

determining a context of said data item (column 1, lines 9-40, column 5, lines 24- 67, column 10, lines 21-27).

As to claims 21, 44 and 67, Platt discloses the method wherein said hidden

Markov model operations are forward probability calculations (column 16, lines 26- 40).

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As to claims 22, 45 and 68, Platt discloses the method wherein said hidden Markov model operations are backward probability calculations (column 16, lines 26-40).

As to claims 23, 46 and 69, Platt discloses the method of wherein one or more wordlets (fig 20, 334) are part of a symbol alphabet (abstract, fig 1, column 21, lines 20-27, 52- 63).

As to claim 20, argument analogous those presented for claim 1 are applicable to claim 20. Regarding performing one or more hidden Markov model operations upon..., as discloses by Platt as follow (abstract, column 17, lines 3-11, column 21, lines 20- 27, 40- 44)

As to claim 43, see the rejection of claim 20, above.

As to claim 66, see the rejection of claim 20, above.

### ***Claim Rejections - 35 USC § 103***

4: The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any



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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-10,16-19,32-33, 39-42,55-56, 62-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US. 5,940,532), in view of Platt et al., (US. 5,812,698), as applied to the claims 1- 8,11-15,20-31, 34-38, 43-54,57-61, 66-69 above and further in view of Friend et al. (US. 5,455,901).

Regarding claims 9, 32 and 55, Platt discloses handwriting recognition system and method Platt does not disclose presenting said machine readable characters to a user.

Friend discloses an input device which is related to the field of handwritten data entry in computer system and its ability to translate original handwritten strokes of ink or blocks of ink into machine-readable words or characters for display. The system comprises of: presenting said machine readable characters to a user (column 10, lines 5- 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Platt to present said machine readable

characters to a user. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Platt by the teaching of Friend in order to provide an improved data entry for handwriting entry computer system by disabling the automatic display of a translation of the entered data, (as suggested by Friend at column 4, lines 9- 11).

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As to claims 10, 33 and 56, Friend discloses the method further comprising obtaining an indication from said user of whether said machine readable characters are a correct translation of said data item (column 2, lines 1- 37, column 6, lines 56- 67, column 7, lines 14- 47, column 9, lines 6- 15).

As to claims 16, 39 and 62, Friend discloses the method wherein said step of selecting I further comprises determining a correctly spelled word wherein said machine readable characters appear in said correctly spelled word and said correctly spelled word is appropriate for said context (column 2, lines 1- 37, column 6, lines 56- 67, column 7, lines 14- 47, column 9, lines 6- 15).

As to claims 17, 40 and 63, Friend discloses the method wherein said step of selecting further comprises:

determining whether machine readable characters are grammatically incorrect for said context (column 2, lines 1- 37, column 6, lines 56- 67, column 7, lines 14- 47, column 9, lines 6- 15).

As to claims 18, 41 and 64, Friend discloses the method of claim 15 wherein said step of selecting further comprises:

determining a word in which said machine readable characters appear in said word and said word appeared previously in said context (column 6, lines 56- 67, column 7, lines 1 - 47).

As to claims 19, 42 and 65, Friend discloses the method of claim 15 wherein said step of selecting further comprises:

examining a set of user information (column 7, lines 31- 47).

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**Contact Information**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan  
Patent Examiner  
Group Art Unit 2624  
April 21, 2007

  
SHEELA CHAWAN  
PRIMARY EXAMINER